

OFFICE OF SURFACE MINING RECLAMATION AND ENFORCEMENT

**Annual Evaluation Summary Report
For the**

North Dakota Public Service Commission

Abandoned Mine Land Reclamation Program



**Evaluation Year 2022
(July 1, 2021 – June 30, 2022)**

**Produced by the Denver Field Division
Casper Area Office**

EXECUTIVE SUMMARY

The following is a summary of the Evaluation Year (EY) 2022 Oversight Report for the North Dakota Abandoned Mine Lands (AML) Program. This report covers the period of July 1, 2021, to June 30, 2022.

Site visits were jointly conducted by the OSMRE and state personnel at various AML reclamation project sites to help assess overall reclamation success on September 8, 2021, and May 24 and 26, 2022. Evaluation of AML projects included the use of aerial photography in conjunction with on-site visits to select project sites. In addition, PSC personnel have documented project progress in completion reports and site photographs. It was agreed that all projects met their goals, abatement and reclamation measures were deemed intact and functional, and no problems compromising those measures were apparent.

The AML Division was awarded the 2021 Small Projects AML Reclamation Award for the Noonan Foamed Sand AML Project. This project evaluated the use of foamed sand as a more efficient alternative to conventional grout for select project sites.

The North Dakota AML program received \$2,829,000 in grant funding during EY2022. This includes administrative and construction sub-grants that fund 4.5 Full-Time Employees (FTEs) and is intended to fund, in whole or in part, four projects that are considered construction ready. A total of five non-emergency projects and no emergency projects were completed during EY2022.

OSMRE has determined that North Dakota has a system in place that is adequate to ensure accurate data is entered into e-AMLIS. The CAO has reviewed a random sample of PADs and is satisfied that all information entered e-AMLIS agrees with the information in the PADs.

The NDPSC adequately encourages public participation and outreach through public meetings, public service announcements, press contacts, project meetings, the NDPSC website, and by responding to public inquiries.

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Cover Page Photograph: Photo shows grout being injected as a barrier wall along the east side of 60th Ave SW as part of the 2021 Beulah Zap Phase 16 AML Project.

I. GENERAL

A. Introduction

The Surface Mining Control and Reclamation Act of 1977 (SMCRA) created the Office of Surface Mining Reclamation and Enforcement (OSMRE) in the Department of the Interior. SMCRA provides authority to OSMRE to oversee the implementation of and provide federal funding for the state abandoned mine land programs that have been approved by the Secretary of the Interior as meeting the minimum standards specified by SMCRA. In addition to conducting oversight of approved state programs, OSMRE provides technical assistance, staff training, financial grants, and assistance, as well as management assistance to each state program. This report contains summary information regarding the North Dakota Abandoned Mine Land Reclamation (AMLR) Program and the effectiveness of the program in meeting the applicable purposes of SMCRA as specified in Section 102. This report covers the 2022 Evaluation Year (EY) July 1, 2021, to June 30, 2022.

On December 23, 1981, the Secretary of the Department of Interior approved North Dakota's AMLR Plan under Title IV of SMCRA. With that approval, the State of North Dakota through the North Dakota Public Service Commission (NDPSC) has exclusive responsibility and authority to operate and administer the Abandoned Mine Reclamation Program.

The OSMRE's evaluation methods are based upon OSMRE Directive AML-22 (Evaluation of State and Tribal Abandoned Mine Lands Programs) and a Performance Agreement (PA) between the NDPSC and the OSMRE. The PA establishes a commitment between the NDPSC and the OSMRE to identify topics for review, methodologies for enhancement and evaluation of performance reviews, and assistance in the preparation of the final report. Assessment of the NDPSCs performance includes reviews of selected topics such as fiscal and administrative controls, progress in coal mine reclamation, overall reclamation success, public interaction and outreach, and integration with the OSMRE Abandoned Mine Land Inventory System (AMLIS) database. Reclamation site visits were conducted jointly by NDPSC project managers and OSMRE staff.

Detailed background information and comprehensive reports for the program elements evaluated during the EY are available for review and copying at the OSMRE, Denver Field Division (DFD), Casper Area Office (CAO), 150 East B St., Room 1018, Casper, WY 82602. To arrange an appointment time, contact Jeff Fleischman via telephone (307) 261-6550 or email jfleischman@osmre.gov.

The reports are also available at the OSMRE Oversight Documents website at <http://odocs.osmre.gov>. Adobe Acrobat Reader® is needed to view these documents. Acrobat Reader® is free and can be downloaded at <http://get.adobe.com/reader>.

Follow these steps to gain access to the document of interest:

1. Select North Dakota from the drop-down box labeled “State”. Also select the current “Evaluation Year”, and then click “Submit”. The search can be narrowed by choosing selections under the “Keyword” or “Category” headings.
2. The oversight documents and reports matching the selected state and evaluation year will appear at the bottom of the page.
3. Select “View” for the document that is of interest and the report will appear for viewing, saving, and/or printing.

The following acronyms are used in this report:

AML	Abandoned Mine Land
AML-1	OSMRE Directive AML-1
AML-22	OSMRE Directive AML-22
AMLIS	Abandoned Mine Land Inventory System
AMLR	Abandoned Mine Land Reclamation
AMLD	Abandoned Mine Land Division
ATP	Authorization to Proceed
CAO	OSMRE’s Casper Area Office
CE	Categorical Exclusion
DFD	OSMRE’s Denver Field Division
EA	Environmental Assessment
EIS	Environmental Impact Statement
EY	Evaluation Year
FAM	OSMRE’s Federal Assistance Manual
FONSI	Finding of No Significant Impact
GIS	Geographic Information System
GPS	Global Positioning System
NDCC	North Dakota Century Code (Law)
NDAC	North Dakota Administrative Code (Rules)
NDPSC	North Dakota Public Service Commission
NEPA	National Environmental Policy Act
NTTP	National Technical Training Program
OSMRE	Office of Surface Mining Reclamation and Enforcement
PAD	Problem Area Description
PSC	Public Service Commission
SMCRA	Surface Mining Control and Reclamation Act of 1977
SPGM	Suitable Plant Growth Material
TIPS	Technical Innovation and Professional Services
WR	OSMRE Western Region (Unified Regions 5, 7, 8, 9, 10 and 11)

B. Program Administration

The North Dakota AMLR program continues to operate under the guidelines of SMCRA, the approved State Reclamation Plan, the Federal Assistance Manual, and associated rules, regulations, and policy decisions. The State administers an excellent AMLR program in full compliance with their approved AMLR Plan.

The Casper Area Office (CAO) continues to enjoy an excellent working relationship with the staff of the North Dakota AMLD. Their personnel are experienced, knowledgeable, and dedicated to the goals of the program. The AMLD also maintains a good relationship with other State and Federal agencies that must be contacted while preparing projects for reclamation. The North Dakota AMLD maintains a program staff of 4.5 full time employees.

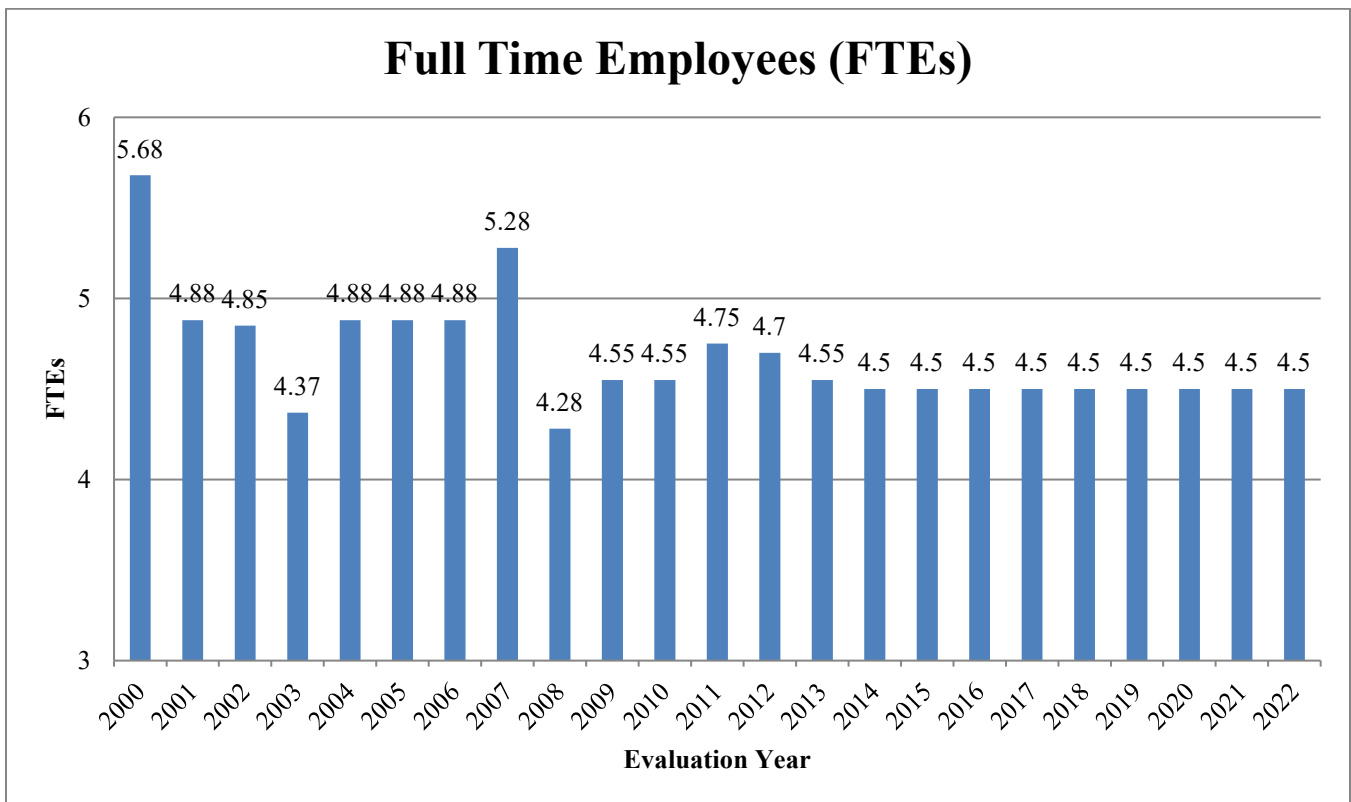


Figure 1: Number of Full Time Employees

The North Dakota AMLD initiates reclamation activities each spring as soon as weather conditions allow. Many rural sites are accessible only by dirt and gravel roads, which must be allowed to dry sufficiently before heavy equipment can travel on them. Work may start as much as two months earlier on sites located near paved roads, and then continues until halted by the severe weather conditions usually encountered in North Dakota during the winter. However, this is generally the time of the year when future projects are designed, and coordination necessary to get projects ready for the next construction season takes place. All the reclamation completed in North Dakota to date has been on abandoned coal mines, and no non-coal work is planned.

Prior to initiating any construction work, the AMLD submits a documentation package to the OSMRE with a request for an Authorization to Proceed (ATP). This package includes 1) a complete Environmental Assessment or Categorical Exclusion, 2) a project eligibility determination pursuant to 30 CFR 874.12 prepared by the Director of the North Dakota Reclamation and AML Divisions, 3) final determination from consultation with the U.S. Fish and Wildlife Service and the North Dakota Parks and Recreation Department regarding threatened and endangered species, 4) final determination from consultation with the State Historic Preservation Office, 5) final determination from consultation with the North Dakota Department of Environmental Quality regarding the effects on surface and groundwater resources, 6) site maps and photographs, and 7) e-AMLIS Problem Areas Description (PAD) reports. If acceptable and complete, the CAO issues a Finding of No Significant Impact (FONSI) and an Authorization to Proceed (ATP) pursuant to section 4-160-50D.3 of the FAM to the AMLD prior to reclamation or construction of each project.

II. NOTEWORTHY ACCOMPLISHMENTS

The NDPSC continues to administer an efficient and successful AMLR program as set forth in Section 102 of SMCRA. Since the Program's inception, the North Dakota AMLD has conducted over 181 primary reclamation projects, 33 emergency projects and numerous construction maintenance and sinkhole filling projects, at a total cost of over \$60.9 million of federal funds. Almost 38.3 linear miles of dangerous surface mine pits and highwalls, and over 1,380 acres of underground mine subsidence have been reclaimed (source e-AMLIS database – Appendix 1, Table 2). These projects have reduced the likelihood of death or injury to property owners and the public.

The following accomplishments by the North Dakota AMLR Program during the 2022 evaluation year are worthy of note:

- The AML Division won the 2021 Small Projects AML Reclamation Award for the Noonan Foamed Sand AML Project.
- Mining Connection.com article published August 23, 2021: "North Dakota's Abandoned Mine Lands Project Near Noonan Receives Top Honors."
- KFYZ Television News: "Public Service Commission Receives Award for Abandoned Mine Work Near Noonan" aired August 26, 2021.
- KFYZ Television News: "North Dakota Public Service Commission to Receive Federal Grant Towards Reclaiming Abandoned Coal Mines." Aired March 10, 2022.
- Dakota News Network article published March 11, 2022: "NDPSC Receiving Federal Grant to Reclaim Abandoned Coal Mines."
- Created Outreach Bookmark and distributed to NRCS and FSA County Offices in the Western half of the state.

III. UTILIZATION OF OSMRE TECHNOLOGICAL ASSISTANCE

The OSMRE provides technical assistance and technology support to state AMLR Programs at the individual state level on project specific efforts, and at the national level in the form of national meetings, forums, and national initiatives. The OSMRE provides direct technical assistance in project and problem investigation, design and analysis, permitting assistance, developing technical guidelines, training, and support. The OSMRE initiated a regional Technology Transfer Team in 2004 to support and enhance the technical skills needed to operate regulatory and reclamation programs, for which each state, including North Dakota, has a representative.

A. National Technical Training Program (NTTP)

During the evaluation year one NDPSC AML staff attended the NTTP class – Effective Writing (ONLINE-OSMRE-NTTP).

B. Technical Innovation and Professional Services (TIPS)

North Dakota AML staff did not attend any TIPS training classes during the evaluation year. Three classes were requested and subsequently cancelled.

The ND AML Program requested the use of OSMRE TIPS downhole camera, which was delivered to the state on April 23rd, 2021, and returned on Sept 10, 2021.

C. OSMRE Western Region Library

The OSMRE Western Region’s library services did not fill any requests from NDPSC for references or article reprints during the evaluation year.

IV. PUBLIC PARTICIPATION AND OUTREACH

The term “public” includes all stakeholders (i.e., citizenry at large, industry, other federal, state, or local agencies, and environmental groups). Opportunities for public participation occur at various points in the North Dakota AML reclamation program.

A. OSMRE

The OSMRE-DFD provides for transparency in the oversight process by conducting outreach to stakeholders and encouraging public participation throughout the OSMRE-DFD’s annual oversight activities. The public can find oversight guidance documents and North Dakota’s Performance Agreement relating to the OSMRE’s oversight of North Dakota’s program on the following OSMRE website: <http://odocs.osmre.gov>.

Each evaluation year, the OSMRE-DFD solicits input from the public and interested parties to comment on oversight and provide suggestions for potential oversight evaluation topics. Sharing of information with the public is highly encouraged by both the OSMRE and the State. The public may include a variety of stakeholders, including, but not limited to, citizenry at large, other federal, state, or local agencies, or environmental groups. OSMRE’s public solicitation for comment on the 2022 evaluation

year was distributed on March 2nd, 2021, and OSMRE’s public solicitation for comment on the 2023 evaluation year was distributed on March 1st, 2022. To be included in future solicitations, please make the request by contacting the OSMRE, Denver Field Division (DFD), Casper Area Office (CAO), at 150 East B St., Room 1018, Casper, WY 82602.

B. North Dakota

The North Dakota Public Service Commission (NDPSC) is the State agency charged with the responsibility for the permitting and regulation of the coal mining industry and reclamation of abandoned mine lands in North Dakota. North Dakota continues to solicit public comment and input on individual AMLR projects and the AMLR program at large. North Dakota publishes notices for each proposed major reclamation project on North Dakota’s procurement website and solicits public comment and requests for public meeting participation. The AMLD has also published a brochure about AML subsidence and routinely sends project completion reports to landowners and other interested parties.

The NDPSC maintains a web site: <http://www.psc.nd.gov> that includes links to information on current and past AML projects, current construction bidding, project selection, department contacts, state laws and rules, consumer information, and professional procurement information.

The NDPSC encourages public participation through public meetings, public service announcements, press contacts, project meetings, and by responding to public inquiries. The NDPSC commonly hosts, or participates in a variety of public meetings, conferences, and workshops.

During the 2022 evaluation year, the North Dakota AMLR Program participated in the following public meetings, conferences, workshops, or other events involving the press or public notification:

- Annual NDSU/DSU Reclamation Workshop (Dickinson).
- Staff participated in several professional-related meetings all being virtual.
- Staff attended the NAAML P Annual Meeting and Winter Business Meeting virtually.

Public meetings conducted by NDPSC involving projects completed or started during EY2022 include:

- November 1, 2021: Public meeting held in Garrison, ND to discuss the 2022 Garrison Phase 5 AML Project.
- December 13, 2021: Public meeting held in New Salem, ND to discuss the 2022 Morton County Phase 3 AML Project.
- March 3, 2022: Public bid opening was held for the 2022 Exploratory Drilling AML Project.
- March 15, 2022: On-site Pre-Bid Contractor’s meeting was held at the 2022 Morton County Phase 3 site.
- A virtual Pre-Bid Contractor’s meeting was held for the 2022 Garrison Phase 5 AML Project.
- March 16, 2021: Public bid opening was held for the 2022 Morton County Phase 3 AML Project and 2022 Garrison Phase 5 AML Project.

OSMRE's programmatic reviews of the North Dakota program indicate that the NDPSC is adhering to the State's policies and procedures regarding opportunities for public participation in all phases of their reclamation program.

V. RESULTS OF EVALUATION YEAR 2022 REVIEWS

OSMRE Directive AML-22 Evaluation of State/Tribe AML Programs dictates that OSMRE oversight of State AMLR programs will include a short description of all program elements reviewed during the evaluation year. These topic-specific reviews are identified and agreed to by both the State and the OSMRE in the most recent performance agreement. For the 2022 evaluation year, both parties have agreed that the OSMRE will conduct topic-specific reviews of: 1) Overall Reclamation Success, 2) AML Emergency Investigations and Abatement Efforts, 3) AML Grant Fiscal and Administrative Controls, 4) AMLIS, and 5) Public Outreach. However, since Public Outreach is already addressed in section IV of this report, a topic-specific review of Public Outreach will not be included in this section.

The North Dakota AML Performance Agreement (PA) for EY2022 was signed on April 23, 2021. The PA describes the team's purpose and the topics selected for review to evaluate the performance of the AML program. On-the-ground, performance-based results were the principal focus of program evaluation and documentation. The North Dakota AML Performance Agreement (PA) for EY2023 was signed on June 21, 2022.

Results of the EY2022 evaluations are summarized below. The evaluations included field visits to AML projects, interviews with NDPSC-AMLD staff, and reviews of the AMLR Program's project specifications, grant applications and reports, and internal state and AMLIS inventories.

A. Overall Reclamation Success

Our EY2022 evaluation of overall reclamation success determined if the NDPSC-AMLD's reclamation met project goals. We compared NDPSC-AMLD's reclamation to project specifications, results of interagency consultation, and other information. Our evaluation focused on determining whether reclamation met project goals by implementing the scope of work to abate original hazards, complying with conditions (if any) resulting from interagency consultation, and improving overall site conditions compared to pre-reclamation conditions. Generally, we agreed that projects met their goals if abatement and reclamation measures are intact and functional, and no problems compromising those measures were apparent. We consider site conditions improved overall if hazards to public health and safety are abated and associated reclamation reduced environmental problems such as erosion and sedimentation while promoting re-vegetation.

We concluded that the projects we visited met their respective goals. NDPSC-AMLD met the goals of abating hazards and improving site conditions at all projects conducted during the evaluation year. Highwalls associated with abandoned surface coal mines were properly eliminated and the re-graded areas were re-vegetated. Underground mine voids were backfilled remotely with injection of

pressurized grout through drilled injection holes to eliminate the threat of subsidence. The injection holes were properly reclaimed. Sinkholes associated with underground mine voids were properly eliminated and backfilled areas were re-vegetated. OSMRE conducted on-site visits of select AML projects on September 8th, 2021, May 24th, 2022, and May 26th, 2022. All travel protocol imposed because of the COVID-19 pandemic were observed.

On September 8th, 2021, the following AML sites were visited:

- 2021 Beulah/Zap Phase 16 AML Project
- 2021 Sinkhole Filling AML Project - Beulah Site
- 2021 Buechler Velva Phase 2 AML Project – Knorr, Lindahl and Quist Sites
- 2021 DePue Coal Fire AML Project
- 2021 Exploratory Drilling AML Project – Garrison Site

On May 24th, 2022, the following AML sites were visited:

- 2021 Buechler Velva Phase 2 AML Project – Lindahl and Quist Sites
- 2021 DePue Coal Fire AML Project
- Potential Future Site - Cy Kittleson Property
- 2021 Sinkhole Filling AML Project - Zeit Site
- RESPEC LIDAR Demo (at site of 2022 Garrison Phase 5 AML Project)

On May 26th, 2022, the following AML sites were visited:

- 2021 Buechler Velva Phase 2 AML Project – Lindahl and Quist Sites
- 2022 Morton Co Phase 3 AML Project

Five non-emergency and no emergency AML projects were completed during EY2022.

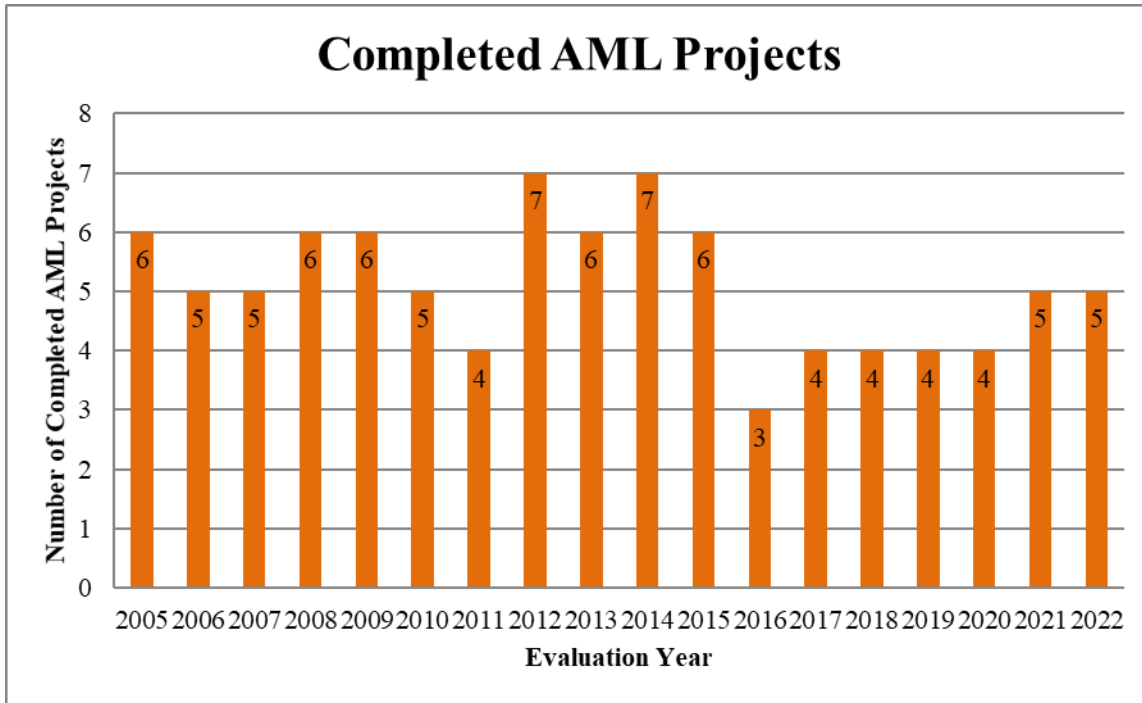


Figure 2: Number of Completed AML Projects

The following is a summary of major non-emergency AMLD Projects completed during EY2022:

2021 DePue Coal Refuse Fire AML Project

Begin Date: August 3, 2021

End Date: November 10, 2021

AMLIS Key: ND000004 (Buechler/Knorr)

Contract Cost: \$9,625

NEPA Action: An Environmental Assessment was revised in July 2021. The ATP/FONSI was issued July 27, 2021.

Project Summary: This project remediated a coal refuse fire located 9 miles southwest of Velva. Project work involved removal and stock piling of topsoil, excavation of a receiving trench and the transfer of approximately 500 linear feet of burning coal refuse into the trench. Burning material was mixed with spoil and packed to extinguish the fire. The project area was then regraded and respread with salvaged topsoil. Approximately 100 feet of road/incline that was underlain by the burning material was rebuilt. This project was originally submitted as an emergency project, however, the project did not meet the requirements for an emergency declaration from OSMRE. It is suspected the project site was a former cleanout pit where fines from a nearby tipple were dumped. The PSC was contacted in 2017 by the Velva Fire Department after the site was evidently ignited by a lightning strike. The Velva Fire department attempted to extinguish the fire by pumping water from an adjacent pit for several weeks. This slowed the burn but did not extinguish it. In March 2021, the fire caused several trees to collapse into the pit.

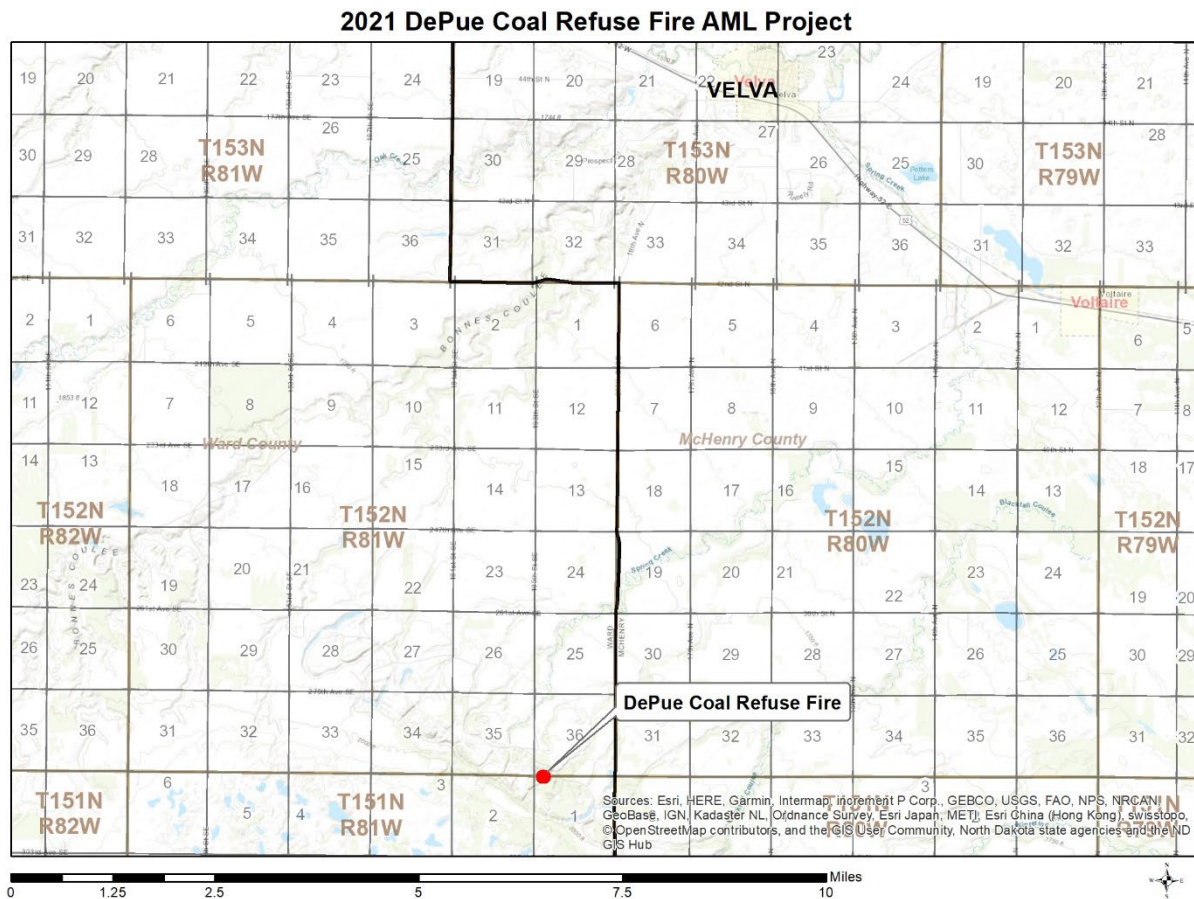


Figure 3: Location of 2021 DePue Coal Refuse Fire AML Project

2021 Buechler/Velva Phase 2 AML Project

Begin Date: July 12, 2021

End Date: September 27, 2021

AMLIS Key: ND000004 (Buechler/Knorr)

Contract Cost: \$325,482.68

NEPA Action: An Environmental Assessment was completed in January 2021. The ATP/FONSI was issued January 27, 2021.

Project Summary: This project addressed approximately 3,500 feet of dangerous highwalls and over 90 sinkholes at three former mine sites in Ward County. The Knorr Mine Site is a former surface coal mine located six miles south and seven miles west of Velva. The site included 1,500 feet of highwalls on 10 acres. The Lindahl Mine Site is a former surface coal mining operation located seven miles south and six miles west of Velva. This site included approximately 2,000 feet of dangerous highwalls. Highwalls at both the Knorr and Lindahl sites were steep and ranged from 35 to 50 feet in height. Remediation involved backsloping and backfilling the highwalls with adjacent spoil materials. The third site is the former Quist Mine. The Quist Mine Site is located approximately 9 miles south and three miles west of Velva. The site is approximately 5 acres and is characterized by over 90 dangerous sinkholes from former underground operations. Sinkholes were filled using spoil material from an adjacent abandoned surface mine. This site is within 650 feet of the Velva Sportsman Pond.

2021 Buechler/Velva Phase 2 AML Project

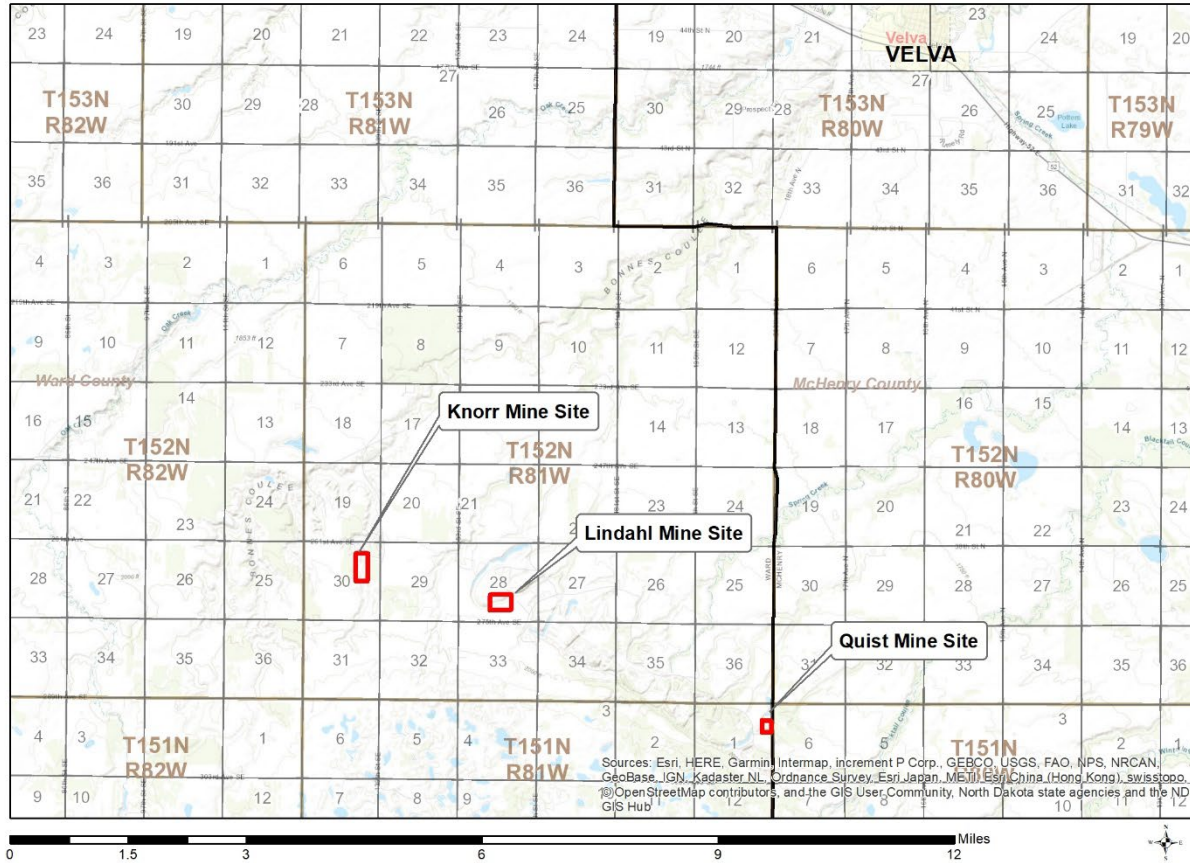


Figure 4: Location of 2021 Buechler/Velva Phase 2 AML Project.

2021 Beulah/Zap Phase 16 AML Project

Begin Date: August 3, 2021

End Date: September 9, 2021

AMLIS Key: ND000014 (Beulah)

Contract Cost: \$1,038,072.80

NEPA Action: An Environmental Assessment was completed in January 2021. The ATP/FONSI was issued January 27, 2021.

Project Summary: This project is Phase 16 of an ongoing project located approximately 2 miles north of Beulah, in Mercer County. This project stabilized underground coal mine workings along North Dakota State Hwy200, 60th Ave SW and a residential lot. An estimated 3,000 cubic yards of grout and 2,000 cubic yards of foamed sand were pumped into underground mine voids utilizing previously drilled and cased holes.

2021 Beulah/Zap Phase 16 AML Project

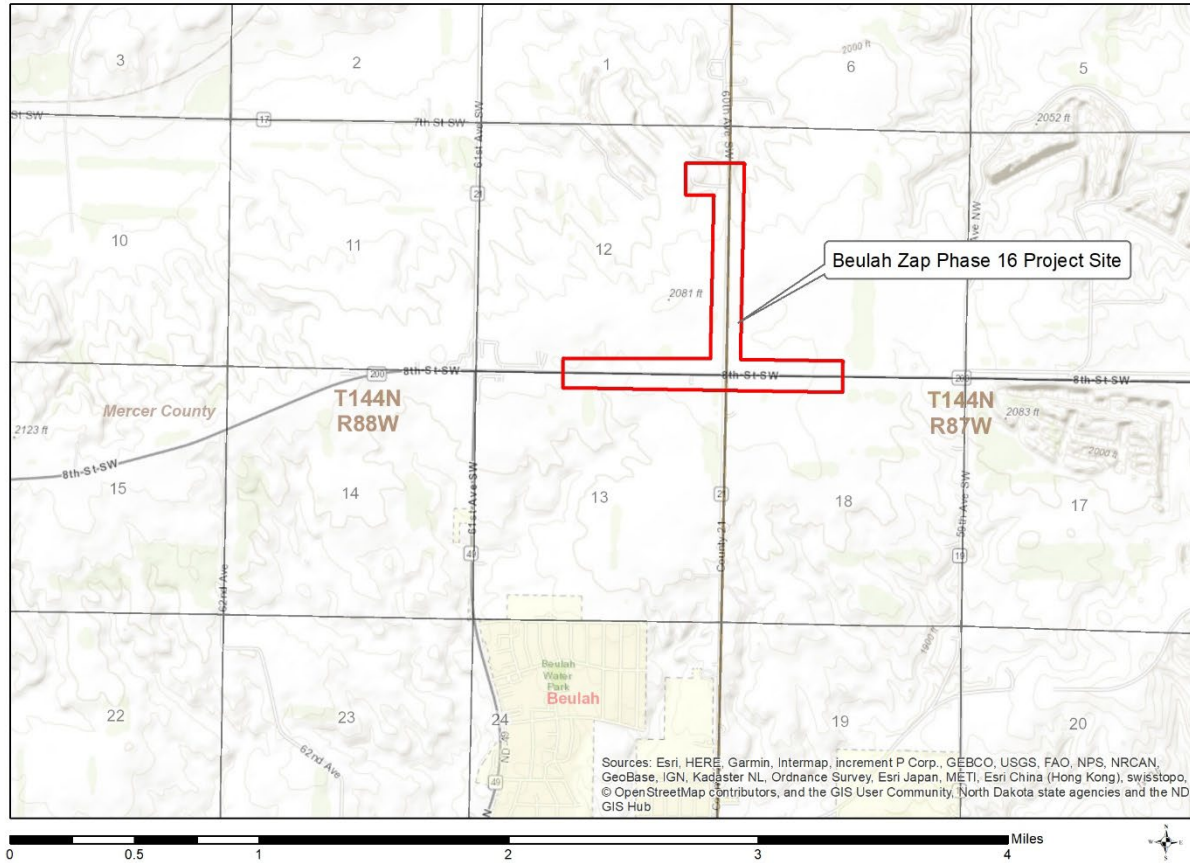


Figure 5: Location of 2021 Beulah/Zap Phase 16 AML Project

2021 Exploratory Drilling AML Project

Begin Date: April 23, 2021

End Date: July 26, 2021

AMLIS Key: ND000016 (Zenith), ND000019 (Garrison)

Contract Cost: \$153,608.20 (\$108,104.60 in funds were expended during EY2022)

NEPA Action: A CE determination for each site was signed on January 27, 2021. The ATP/FONSI was issued January 27, 2021.

Project Summary: This project located and characterized hazardous underground mine workings near residential homes and public roads in Belfield (Stark County) and Garrison (McLean County). A third project site near Dickinson was proposed, but later dropped from the project

2021 Exploratory Drilling AML Project

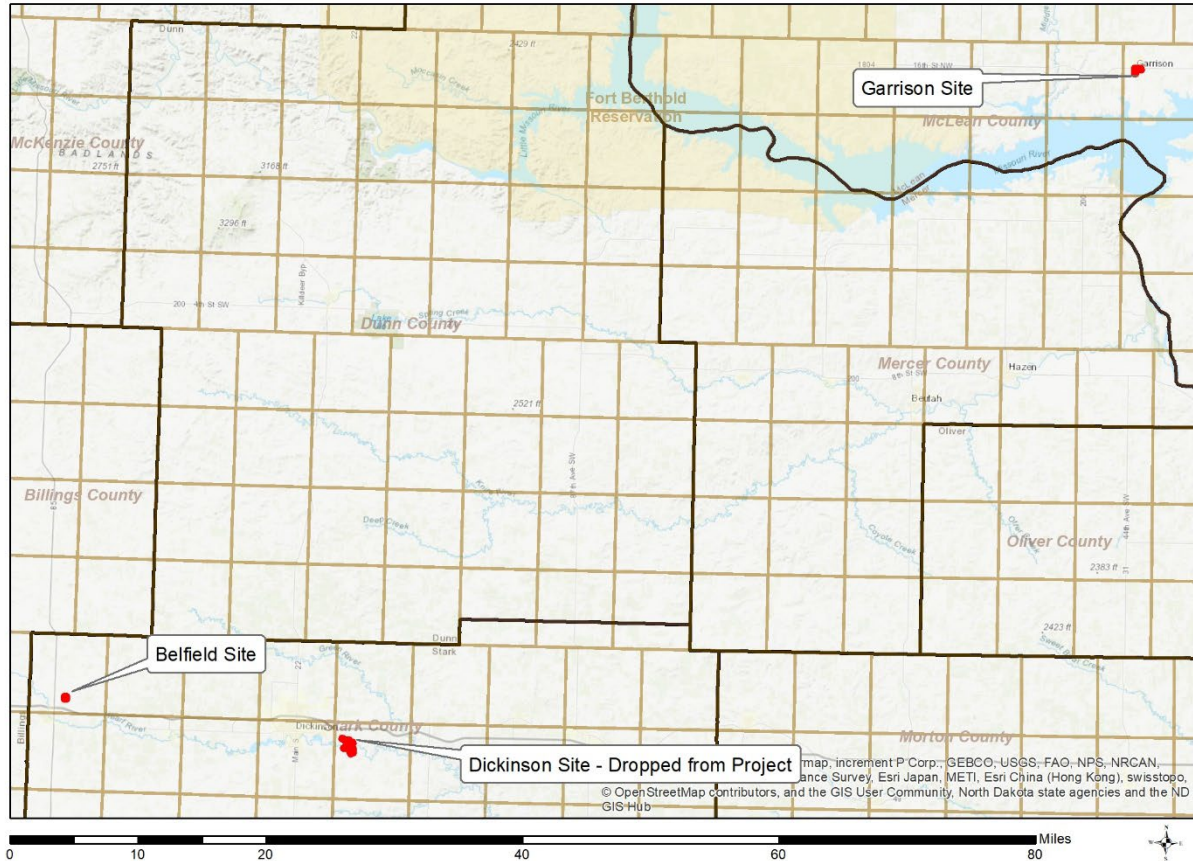


Figure 6: Location of 2021 Exploratory Drilling AML Project.

2021 North and South Sinkhole Filling AML Projects

Begin Date: September 28, 2021

Estimated End Date: November 18, 2021

AMLIS Keys: ND000001 (Wilton), ND000004 (Buechler/Knorr), ND000014 (Beulah), ND000019 (Garrison), ND000029 (Noonan), ND000044 (Scenic East), ND000046 (West Williston A), ND000054 (New Salem), ND000090 (Parshall), ND000124 (Haynes), ND000147 (Hanks), and ND000528 (Scranton).

Contract Cost: \$75,322.31

NEPA Action: EA completed September 2016, and revised December 2021, ATP and FONSI issued July 28, 2021.

Project Summary: These projects remediated dangerous sinkholes caused by the subsidence of underground mines. Construction work for the 2021 North and South Sinkhole Filling Projects took place during the summer and fall of 2021, which falls within the 2022 evaluation year (July 1, 2021, until June 30, 2022). While it is impossible to predict exactly when and where sinkholes will occur, the EA for this project evaluates potential sites within historic mining districts and includes areas where

sinkholes have been documented in the past. Occasional maintenance work was also conducted. Sinkholes were filled near the towns of Beulah, Hanks, Haynes, New Salem, Parshall, Scranton, Velva, Williston, Wilton, and Zap. Sinkholes at the Garrison site were filled by the landowner and no sinkholes were filled at the Noonan site during EY2022.

Sites remediated during EY2022 are summarized in the table below.

Summary of Sites from the 2021-2022 Sinkhole Filling AML Project (2021 sites)						
Sites	Dates (2021)	Twp.	Rng.	Sec	# sinkholes	Cost
Williston (ND044)	Oct 11-12	154	100	20	1	\$537.40
Williston (ND046)	Oct 11-12	154	101	5,7	6	\$2,149.60
Parshall (ND090)	Oct 18-19	152	89	19	9	\$2,687.00
Wilton (ND001)	Nov 17-19	142	79	5,6,8	40	\$6,582.54
	Nov 17-19	142	80	1		
New Salem (ND054)	Nov 19	139	85	15	6	\$1,687.00
Haynes (ND124)	Nov 22	129	94	6	5	\$2,066.87
Hanks (ND147)	Oct 12	154	102	12	9	\$2,687.
		159	101	17	6	
Velva (ND004)	Oct 19-	152	82	15	55	\$35,163.35
	Nov 11	152	81	19,20,30		
Beulah/Zap (ND014)	Sept 27-	144	89	22,23,24,25,26	46	\$20,011.62
	Oct 8		87	7	32	
Scranton (ND528)	Aug 3	131	100	24	3	\$1,750.00
TOTAL						
					214	\$75,322.31

Figure 7: Sinkholes filled during EY2022 as part of the 2021 North and South Sinkhole Filling AML Projects

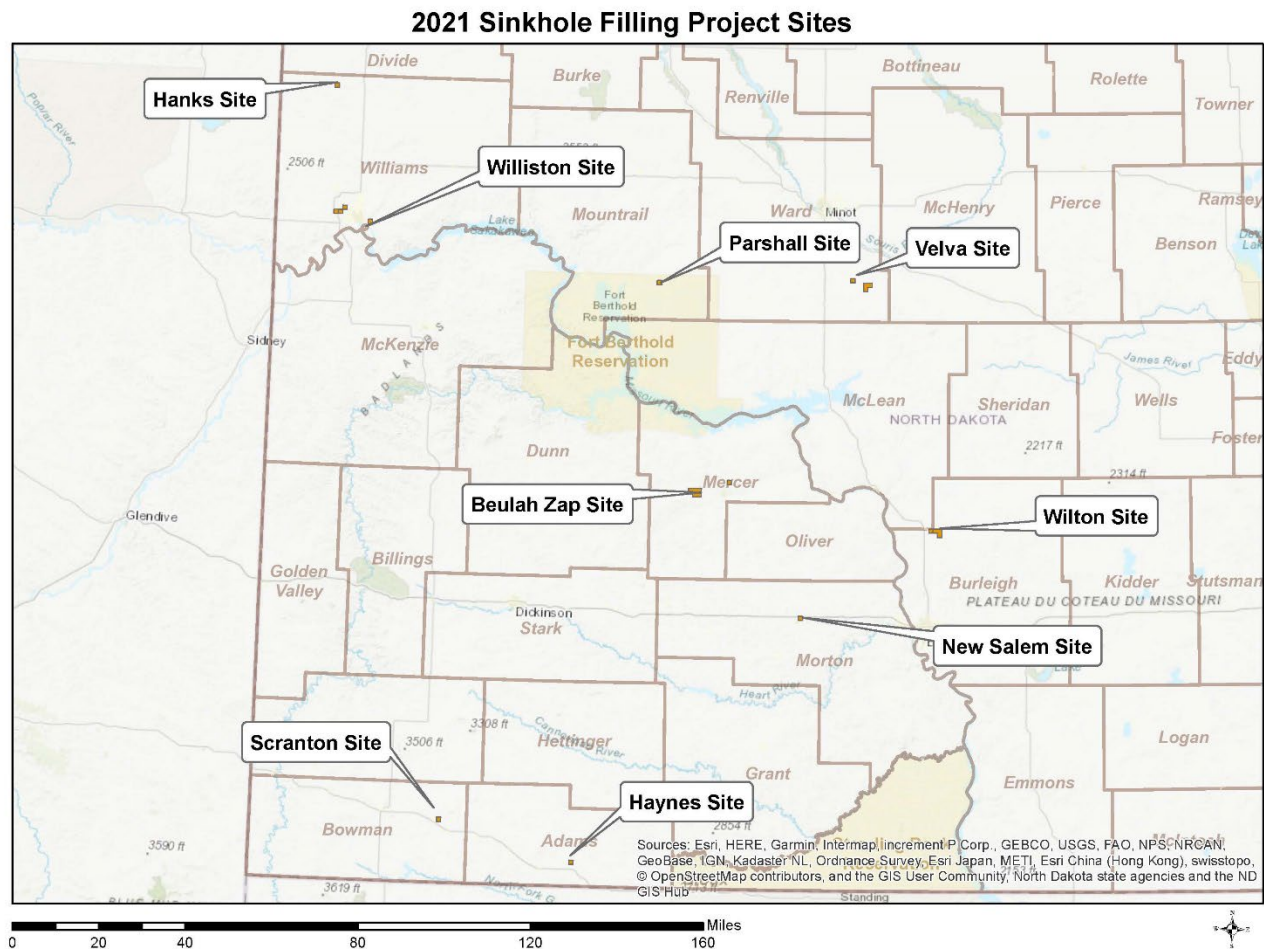


Figure 8: Labeled sites indicate sinkholes filled during the 2022 Evaluation Year.

For more information, NDAML routinely posts project summaries for current and completed AML projects: <https://www.psc.nd.gov/jurisdiction/aml/projects.php> .

Construction work for the following project was planned for the EY2022 field season, however, the project was not completed during the evaluation year.

2021 Belfield Remote Backfilling AML Project

AMLIS Key: ND000016 (Zenith)

Estimated Contract Cost: \$25,000

NEPA Action: An Environmental Assessment was completed in January 2021. The ATP/FONSI was issued July 27, 2021.

Project Summary: This project was intended to stabilize underground mine workings near a private homestead northeast of Belfield in Stark County. Project work was to involve injection of grout into holes previously drilled as part of the 2021 Exploratory Drilling Project. Approximately 50 cubic yards of grout or and 50 tons of foamed sand would be required to fill and stabilize mine voids within the project area. The area is historically undermined by the Lerfald Lignite Mine, which conducted underground operations from 1923 until approximately 1932. From 1932 until 1935, the mine operated

as a surface mine, with the coal seam only 25 feet below the surface. The 2019 Exploratory Drilling Project previously drilled and cased 135 holes in preparation for grouting.

Explanation: The NDAML D determined that this project was not economical and chose not to proceed with construction work associated with this project. The main reason for this decision was a lack of locally available and affordable grouting materials. A local supplier of these materials could not be secured, and no contract funds were expended on this project.

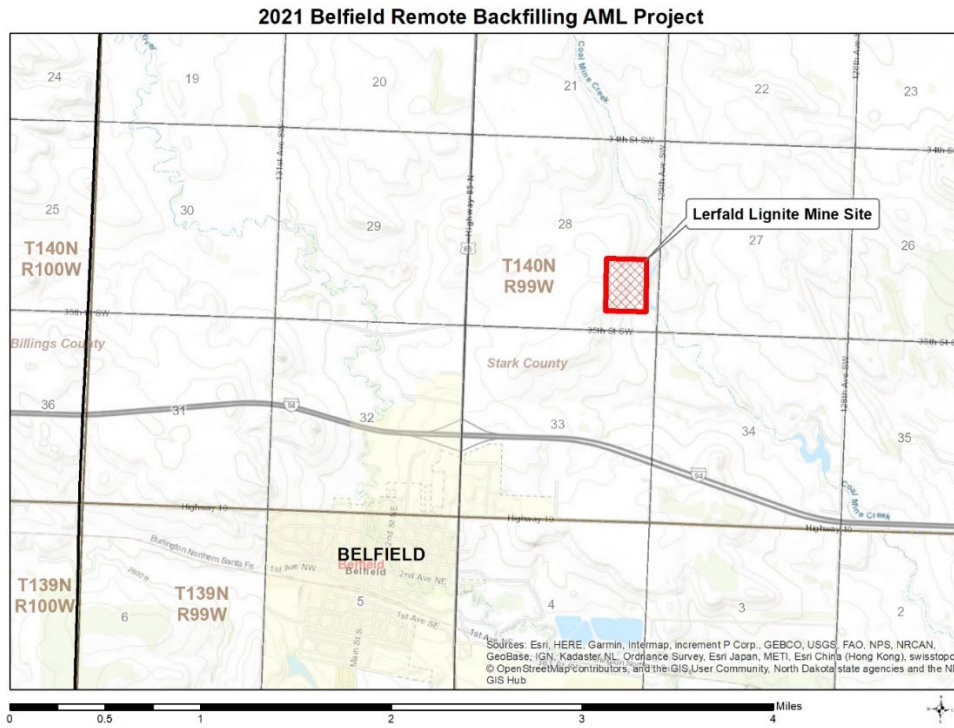


Figure 9: Location of 2021 Belfield Remote Backfilling AML Project

2022 Construction Ready Projects

The following is a summary of construction ready projects. These are estimates of project areas for which information is available for preliminary project design. Field construction is expected to be carried out over the summer and fall of 2022, and completion data will be reported in OSMRE’s EY2023 oversight evaluation report.

Project Site	Estimated Project Cost
2022 Garrison Phase 5 AML Project	\$735,500
2022 Morton County Phase 3 AML Project	\$273,155
2022 Exploratory Drilling AML Project	\$904,060
2021-2022 Sinkhole Filling AML Project (2022 Sites)	\$103,500
TOTAL	

Figure 10: Construction Ready Projects planned for the summer and fall of 2022 (EY2023).

2022 Garrison Phase 5 AML Project

Estimated Begin Date: July 1, 2022

Estimated End Date: late September 2021

AMLIS Key: ND000019 (Garrison)

Estimated Contract Cost: \$735,500

NEPA Action: An Environmental Assessment was completed in November 2021. The ATP/FONSI was issued December 9, 2021.

Project Summary: This project area is located directly south of Garrison, in McLean County, T148N R84W, in Sections 17 and 18. The project will utilize remote backfilling to stabilize abandoned underground coal mine workings along McLean County Highway 15, south of the intersection with North Dakota Highway 37 and near homes in the adjacent Garrison subdivision. Several sinkhole filling and drilling and grouting projects have taken place in the Garrison area dating back to 1983. The project will use previously drilled and cased holes and conduct additional drilling as needed. An estimated 2,000 cubic yards of flowable fill will be pumped into mine workings. The total area impacted is estimated to be less than 5 acres and surface disturbance should be minimal.

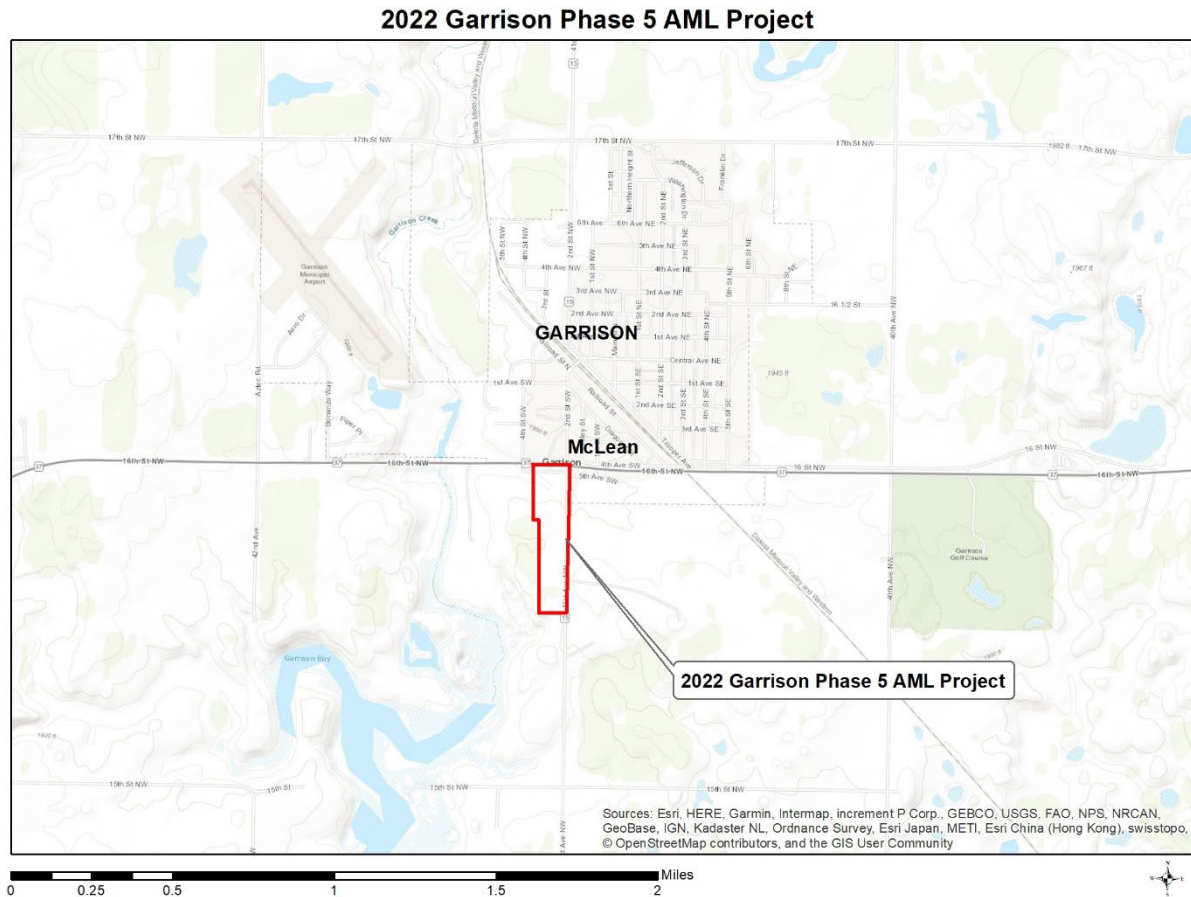


Figure 11: Location of 2022 Garrison Phase 5 AML Project

2022 Morton County Phase 3 AML Project

Estimated Begin Date: June 2022

Estimated End Date: September 2022

AMLIS Key: ND000100 (North New Salem)

Estimated Contract Cost: \$273,155

NEPA Action: An Environmental Assessment was completed in November 2021. The ATP/FONSI was issued December 9, 2021.

Project Summary: This project area is located approximately six miles northwest of New Salem, in Morton County, T140N R85W, in Sections 18 and 19. The project area encompasses approximately 12.5 acres and consists of approximately 3200 feet of dangerous highwalls. The Youngstown surface coal mine formerly operated at this site. Exact dates of operation are unknown, but it is estimated mining operations have taken place at this site from the early 1900s until the early 1950s. The highwalls extend to 25 feet in height and exhibit sloughing, piping, and other indications of instability. Remediation will require grading the highwalls and backfilling with adjacent spoil materials. Where possible, topsoil will be salvaged and respread. Reclaimed areas will be seeded with locally adapted grass species native to western North Dakota.

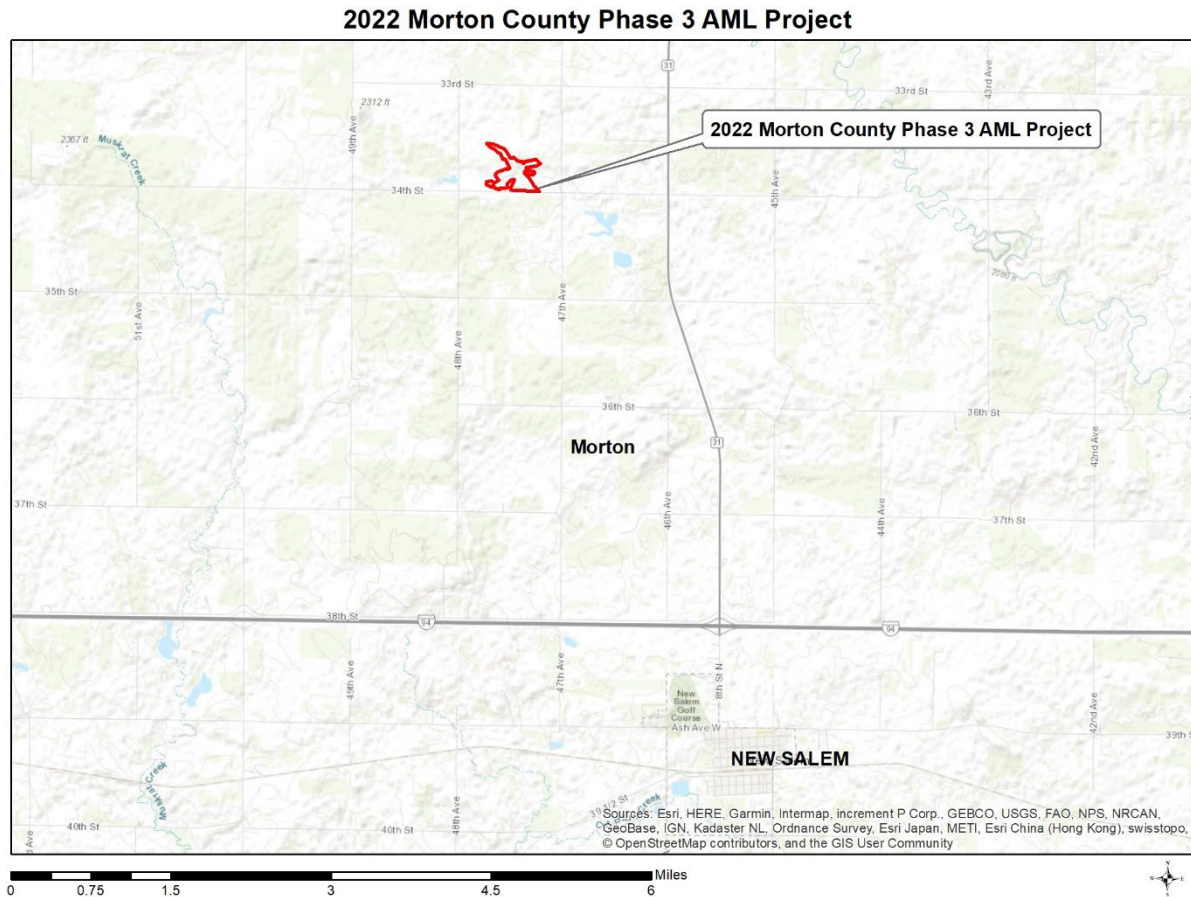


Figure 12: Location of 2022 Morton County Phase 3 AML Project

2022 Exploratory Drilling AML Project

Estimated Begin Date: April 15, 2022

Estimated End Date: September 2022

AMLIS Key: ND000004 (Buechler/Knorr), ND000014 (Beulah/Zap), ND000019 (Garrison), ND000024 (Binek B,C,D,E,H), and ND000029 (Noonan)

Estimated Contract Cost: \$904,060

NEPA Action: An Environmental Assessment was completed in November 2021. The ATP/FONSI was issued December 9, 2021.

Project Summary: This project includes multiple sites located in or near the towns of Beulah, Dickinson, Garrison, Noonan, and Velva, in Mercer, Stark, McLean, Divide, Ward, Divide, and Ward Counties. The project will conduct exploratory drilling to locate and characterize hazardous underground mine workings beneath public roads and occupied residences. Drill will be conducted within residential areas and road right-of-ways. Surface disturbance is expected to be minimal.

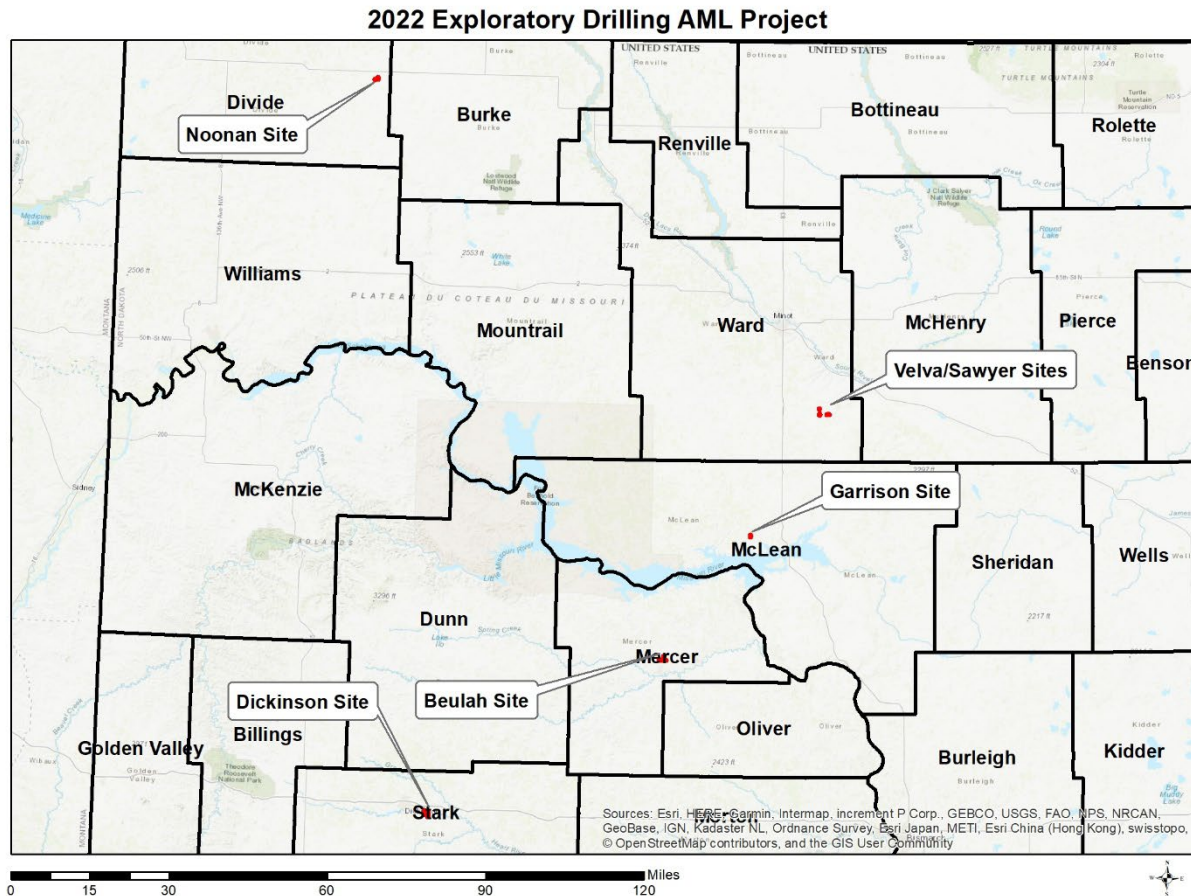


Figure 13: Location of 2022 Exploratory Drilling AML Project

2022 North and South Sinkhole Filling AML Projects

Estimated Begin Date: Late Summer 2022

Estimated End Date: Fall 2022

AMLIS Keys: ND001, ND004, ND014, ND019, ND029, ND046, ND090, ND124, and ND147.

Estimated Contract Cost: \$103,500

NEPA Action: EA completed September 2022, ATP and FONSI are pending.

Project Summary: This project is administered annually and involves the surface backfilling of dangerous sinkholes caused by subsidence of underground mines. Backfilled areas are re-spread with available topsoil and seeded with native grass mixes. Construction work for the 2022 Sites will take place during the late summer and fall of 2022 and results will be reported in the oversight evaluation report for EY2023. Sinkholes scheduled to be filled during this time are located near the towns of Beulah, Bowman, Dickinson, New Salem, Noonan, Richarton, Scranton, Turtle Lake, Underwood, Washburn, Williston, Wilton, and Zap.

While it is impossible to predict exactly when and where sinkholes will occur, the EA for this project evaluates potential sites within historic mining districts and includes areas where sinkholes have been documented in the past. Sinkholes commonly open in the spring, as frozen ground thaws and water stored as ice and snow over the winter seeps into shallow underground mine voids, contributing to the collapse of overburden. Occasional maintenance work may also be required. Historic mining districts occur near the towns of Beach, Beulah, Bowman, Burlington, Dickinson, Garrison, Hanks, Havelock, Haynes, Hebron, Heil/Comet, Lefor, Leith, New Salem, New Leipzig, Niobe, Noonan, Parshall, Regent, Richarton, Scranton, Tioga, Velva, Washburn, White Earth, Williston, Wilton, Zap, and Zenith.

ND Historic Districts Prone to Subsidence

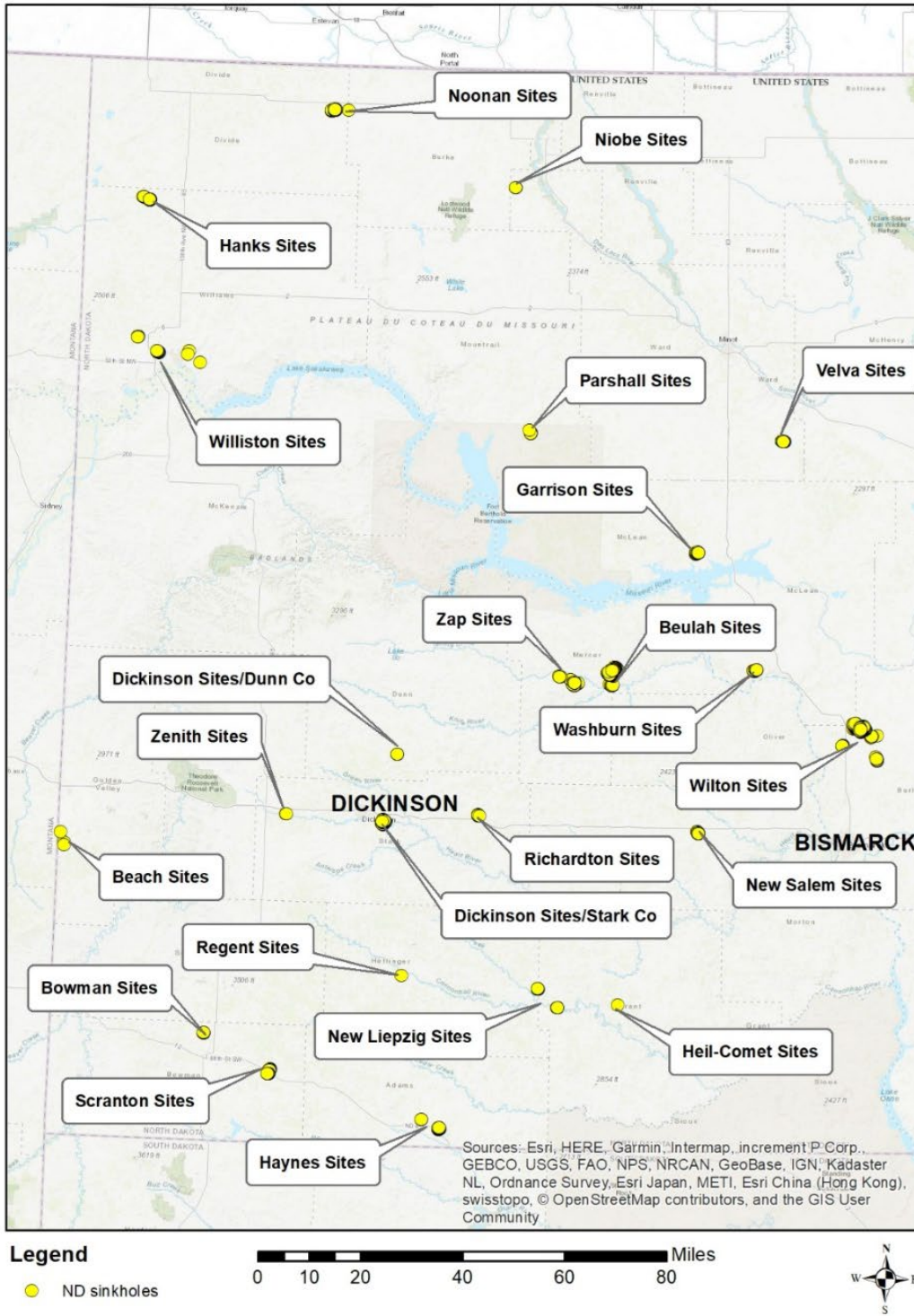


Figure 14: Location of Historic Sinkhole Filling Sites in North Dakota.

B. AML Emergency Reclamation Success

North Dakota has managed its own Emergency AML Program since OSMRE approval in 1993. OSMRE no longer distributes emergency funding with the annual AML grant allocations. North Dakota funds and operates its Emergency AML Program in conjunction with non-emergency AML projects. No emergency projects were conducted during EY2022.

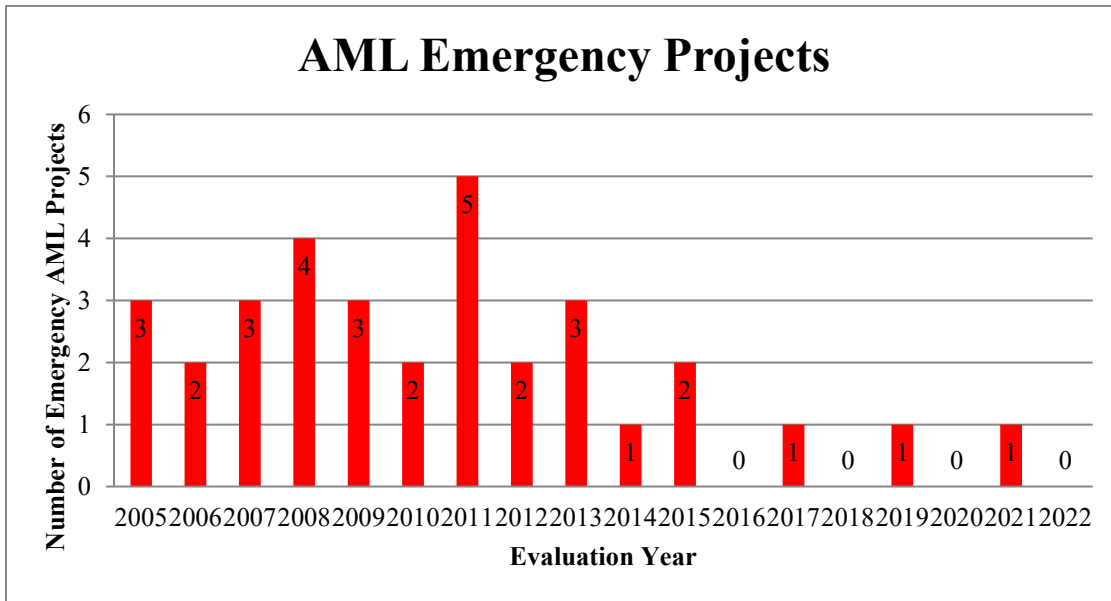


Figure 15: Number of AML Emergency Projects (2005-2022)

C. AML Grant Fiscal and Administrative Reviews

When OSMRE receives a grant application from the North Dakota AMLD, the OSMRE staff review the application package to determine compliance with programmatic requirements. This review ensures that the application meets the requirements set forth in the Federal Assistance Manual (FAM) Part 1-120-30B including the completion of forms SF-242 (Application for Federal Assistance), OSM-51 (or an equivalent program narrative), OSM-47 (or alternative format itemized budget), and Assurances Form SF-424D as appropriate. Prior to approval, the OSMRE must review the application to determine whether the State can accomplish the proposed goals in the manner and timeframe provided, and whether the State can manage the projects in compliance with federal laws and regulations. Section 1-150-30 of the FAM also prescribes how the OSMRE will monitor program performance.

The North Dakota AMLD was allocated \$2,829,000 dollars for their fiscal year 2021 grant period, beginning March 1, 2021. Grant No. S21AF20025 began on March 1, 2021 and is scheduled to end on February 28, 2024.

The North Dakota AMLD was allocated \$2,829,000 dollars for their fiscal year 2022 grant period, beginning March 1, 2022. Grant No. S22AF00047 began on March 1, 2022 and is scheduled to end on February 28, 2025. All projects conducted during the grant periods are anticipated to involve the reclamation of abandoned surface and underground coal mines.

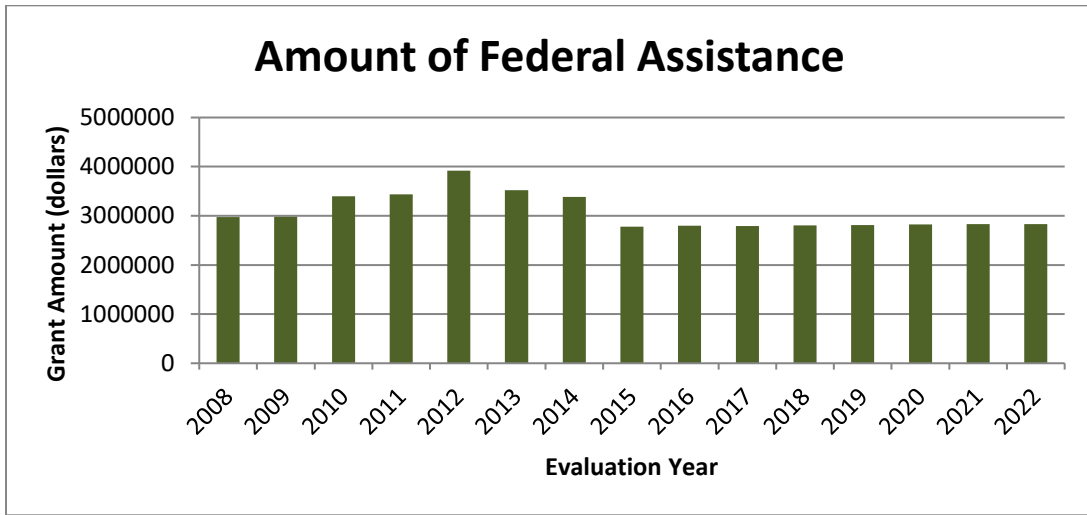


Figure 16: Amount of Federal Assistance Allocated to North Dakota (2008-2022)

The ND PSC maintains a very cost-effective program with only 14% of the grant dedicated to Administrative Costs. The remainder of the grant is spent on project design and construction.

The grant funding and expenditures are broken down as follows:

AML Consolidated Grant Funding and Expenditures

2021 AML Consolidated Grant (S21AF10025)

Minimum Program Makeup	\$1,522,726
State Share (SS)	\$992,857
Historic Coal Funds (HC)	<u>\$313,417</u>
Total	\$2,829,000

Grant Line Item Budgets

Administrative Costs	\$516,472
Project Construction Costs	<u>\$2,316,528</u>
Total	\$2,829,000

2022 AML Consolidated Grant (S22AF00047)

Minimum Program Makeup	\$1,525,928
State Share (SS)	\$1,004,452
Historic Coal Funds (HC)	<u>\$298,620</u>
Total	\$2,829,000

Grant Line Item Budgets

Administrative Costs	\$457,749
Project Construction Costs	<u>\$2,371,251</u>
Total	\$2,829,000

D. e-AMLIS

The North Dakota AMLD compiles data from various sources for input into e-AMLIS. These sources include project information spreadsheets, project diaries, closeout reports to the PSC and PSC-approved payment of contractor invoices. Data pertaining to emergency projects include procurement and contract data compiled in Project Summary Books, site-specific project data and site photographs. Project completion data is tracked on an Excel spreadsheet. Information in the spreadsheet includes the project name, location, contract number, contractor name, year of contract, year of completion, cost, and method of reclamation. Designated AMLD Project Managers enter information into e-AMLIS. This information is based on the above-mentioned data sources.

OSMRE's EY2021 evaluation of e-AMLIS determined if the information the State entered into e-AMLIS agrees with information in its files. This topic was mandated for review due to a September 2004 report issued by the Interior's Office of the Inspector General (OIG). The report criticized the accuracy of e-AMLIS data, based on the OIG review of e-AMLIS data for four eastern States' AML programs. The OIG's review concluded that e-AMLIS data did not match data in those States' files and recommended establishing "a quality control system that ensures that States, Tribes, and the OSMRE, as applicable, review and certify the accuracy of data entered into AMLIS." In response to the OIG's recommendation, the OSMRE required its field offices to implement two requirements. The first requirement is to "assure that each State and Indian Tribe AML program has procedures in place to ensure and certify the accuracy of data entered into e-AMLIS" as part of the FY2004 oversight (subsequently changed to FY2005). OSMRE Headquarters subsequently advised field offices to drop the certification requirement. As a result, the focus is to make sure States and Tribes have requisite systems in place. The CAO has determined that North Dakota has such a system in place that is adequate to ensure accurate data is entered into e-AMLIS.

The second requirement implemented by the OSMRE in response to the OIG's recommendation stated, "once these State and Indian Tribe procedures are in place, the OSMRE will annually review a random sample of [PADs] to see if the information entered into e-AMLIS agrees with the information in the PAD." The CAO has reviewed a random sample of PADs and is satisfied that all information entered into e-AMLIS agrees with the information in the PAD.

APPENDIX 1: Summary of Core Data to Characterize the AML Program

North Dakota Annual Evaluation Report Evaluation Year 2022

The following tables present summary data pertinent to abandoned mine land activities under the North Dakota AML program. Unless otherwise specified, the reporting period for the data contained in the tables is the Evaluation Year. Other data and information used by OSMRE in its evaluation of North Dakota performance are available for review in the evaluation file maintained by the DFD-CAO.

Because of the enormous variations from state to state and the differences between state programs, the summary data should not be used to compare one state to another.

List of Tables

- Table 1 Status of AML Inventory All Priority 1, 2, and 3 Hazards
- Table 2 Accomplishments in Eliminating Health and Safety Hazards Related to Past Mining Priority 1 and 2 Hazards
- Table 3 Accomplishments in Eliminating Health and Safety Hazards Related to Past Mining Priority 3 and SMCRA Section 403(b) Hazards
- Table 4 Public Well-Being Enhancement
- Table 5 Partnership Financial Resources Dedicated to Protecting the Public from Adverse Effects of Past Mining
- Table 6 Reclamation Projects Started and/or Completed
- Table 7 AML Program Grant Awards and Staffing

Table 1 – North Dakota Status of AML Inventory all Priority 1, 2, and 3 Hazards on June 30, 2022

	High Priority		Elevated Priority 3	Stand-Alone Priority 3 (Not adjacent or in conjunction w/ P1&2)	Total
	Priority 1	Priority 2			
UNFUNDED					
GPRC Acres	72.9	7115.7	N/A	2957	10145.6
Dollars	\$568,789.78	\$35,221,955.35	N/A	\$105,000	\$35,895,745.13
FUNDED					
GPRC Acres	0	25	0	0	25
Dollars	0	\$1,661,950.00	0	0	\$1,661,950.00
COMPLETED					
GPRC Acres	273	4544.66	12	1390	6219.66
Dollars	\$3,230,297.72	\$57,694,104.43	0	0	\$60,924,402.15

Table 2 - North Dakota Accomplishments in Eliminating Health and Safety Hazards Related to Past Mining Priority 1 and 2 Hazards (As of June 30, 2022)

PROBLEM TYPE (keyword)																		
	Clogged Stream (CS) (miles)	Clogged Stream Lands (CSL) (acres)	Dangerous Pile or Embankment (DPE)(acres)	Dangerous Highwall (DH) (feet)	Dangerous Impoundment (DI) (count)	Dangerous Slide (DS) (acres)	Gases: Hazardous /Explosive (GHE) (count)	Hazardous Equip. /Facilities (HEF) (count)	Hazardous Water Body (HWB) (count)	Industrial/Residential Waste (IRW) (acres)	Portal (P) (count)	Polluted Water:Agri/Industrial (PWAI)(count)	Polluted Water: Human Consumption (PWHC)(count)	Subsidence (S) (acres)	Surface Burning (SB) (acres)	Underground Mine Fire (UMF) (acres)	Vertical Opening (VO) (count)	TOTAL
UNRECLAIMED/REMAINING HAZARDS (Unfunded)																		
Units			0	119,775	6	0		5	25	14	1	1	1	5,272	4.8		0	N/A
GPRA Acres			0	1,732.60	30	0		0.5	125	14	0.1	5	5	5,272	4.8		0	7188.682
Dollars			0	17,884,647	68,790	0		25,000	20,000	35,000	10,000	208,700	7500	17,520,733	10,375.00		0	35,790,745.13
ANNUAL RECLAMATION - EY2022 only (Completed)																		
Units			0	280	0	0	0	0	0	0	0	0	0	15.4	0.2		0	N/A
GPRA Acres			0	4	0	0	0	0	0	0	0	0	0	15.4	0.2		0	19.6
Dollars			0	308,395	0.00	0	0	0	0	0	0	0	0	1,238,587	9625		0	1,556,607
HISTORICAL RECLAMATION - EY1978 - 2022 (Completed)																		
Units			317	202,427.90	8	35		14	18	2	13	6	0	1386.75	21.37		71	N/A
GPRA Acres			317	2,891.94	40	35		1.4	90	2	1.3	30	0	1380.55	21.37		7.1	4817.66
Dollars			972,048	19,417,791	44,839	122,500		74,861	278,558	2	16,003	746,144	0	38,890,533.98	78,911		282,211	60,924,402.15

Table 3 - North Dakota Accomplishments in Eliminating Environmental Problems Related to Past Mining Priority 3 and SMCRA section 403(b) Hazards (As of June 30, 2022)

PROBLEM TYPE (keyword)															
	Bench , Solid Bench, Fill Bench (BE) (acres)	Industrial/Residential Waste Dump (DP) (acres)	Equipment and Facilities (EF) (count)	Gob (GO) (acres)	Highwall (H) (feet)	Haul Road (HR) (acres)	Mine Opening (MO) (count)	Pit, Open Pit, Strip Pit (PI) (acres)	Spoil, Spoil Bank (SA) (acres)	Slurry (SL) (acres)	Slump (SP) (acres)	Water (WA) (gallons)	Other (specify)	Water Supplies (WS) – Section 403(b) (count)	TOTAL
UNRECLAIMED/REMAINING HAZARDS (Unfunded)															
Units				1					2,951			10			N/A
GPRAs Acres				1					2,951			10			2952
Dollars				5,000					70,000			30,000			105000
ANNUAL RECLAMATION - EY2022 only (Completed)															
Units															N/A
GPRAs Acres															0
Dollars															0
HISTORICAL RECLAMATION - EY1978 - 2022 (Completed)															
Units				0					1,402			0			N/A
GPRAs Acres				0					1,402			0			1402
Dollars				0					0			0			0

**Table 4 – North Dakota Public Well-Being Enhancement
(All Priority 1, 2, and 3 AML projects completed during EY 2022)**

#	PAD Number	Project Name	Problem Type(s) Reclaimed	GPRA Acres	Cost	Number of People with Reduced Exposure Potential (State Estimated /or/ Census Data)
1	ND000019	2021 Exploratory Drilling AML Project	S	0	\$108,104.60	13
2	ND000004	2021 Buechler/Velva Phase 2	DH	4	\$308,395.00	170
3	ND000004	2021 Buechler/Velva Phase 2	S	4.7	\$17,087.68	170
4	ND000044	2021 North Sinkhole Filling	S	0.1	\$537.40	5
5	ND000046	2021 North Sinkhole Filling	S	0.1	\$2,149.60	9
6	ND000090	2021 North Sinkhole Filling	S	0.1	\$2,687.00	25
7	ND000001	2021 North Sinkhole Filling	S	0.8	\$6,582.54	5
8	ND000054	2021 South Sinkhole Filling	S	0.1	\$1,687.00	19
9	ND000124	2021 South Sinkhole Filling	S	0.2	\$2,066.80	10
10	ND000147	2021 North Sinkhole Filling	S	0.1	\$2,687.00	9
11	ND000004	2021 North Sinkhole Filling	S	1.9	\$35,163.35	5
12	ND000004	2021 DePue Coal Refuse Fire	SB	0.2	\$9,625.00	5
13	ND000014	2021 South Sinkhole Filling	S	2.2	\$20,011.62	780
14	ND000528	2021 South Sinkhole Filling	S	0.1	\$1,750.00	5
15	ND000014	2021 Beulah/Zap Phase 16	S	5	\$1,038,072.80	3630
TOTAL				19.6	\$1,556,607.39	4860

**Table 5 – North Dakota - Partnership Financial Resources Dedicated to Protecting the Public from Adverse Effects of Past Mining
(AML projects completed during EY 2022)**

#	PAD Number	Project Name	SMCRA Program Funding Source	Total SMCRA funding	Alternate Non-SMCRA Funding Source	Total non-SMCRA Funding	In-Kind Services	Total Project Funding	Comments
1	ND000019	2021 Exploratory Drilling		\$108,104.60				\$108,104.60	
2	ND000004	2021 Buechler/Velva Phase 2		\$308,395.00				\$308,395.00	
3	ND000004	2021 Buechler/Velva Phase 2		\$17,087.68				\$17,087.68	
4	ND000044	2021 North Sinkhole Filling		\$537.40				\$537.40	
5	ND000046	2021 North Sinkhole Filling		\$2,149.60				\$2,149.60	
6	ND000090	2021 North Sinkhole Filling		\$2,687.00				\$2,687.00	
7	ND000001	2021 North Sinkhole Filling		\$6,582.54				\$6,582.54	
8	ND000054	2021 South Sinkhole Filling		\$1,687.00				\$1,687.00	
9	ND000124	2021 South Sinkhole Filling		\$2,066.80				\$2,066.80	
10	ND000147	2021 North Sinkhole Filling		\$2,687.00				\$2,687.00	
11	ND000004	2021 North Sinkhole Filling		\$35,163.35				\$35,163.35	
12	ND000004	2021 DePue Coal Refuse Fire		\$9,625.00				\$9,625.00	
13	ND000014	2021 South Sinkhole Filling		\$20,011.62				\$20,011.62	
14	ND000528	2021 South Sinkhole Filling		\$1,750.00				\$1,750.00	
15	ND000014	2021 Beulah/Zap Phase 16		\$1,038,072.80				\$1,038,072.80	
TOTAL				\$1,556,607.39		0	0	\$1,556,607.39	

Table 6 – North Dakota – Reclamation Projects Started and/or Completed (AML projects started and/or Completed during EY 2022)

Project Type	Projects Started	Projects Completed
State/Tribe (EY 2022):	5	5
Federal (EY 2022):	0	0
Total (EY 2022):	5	5

**Table 7 – North Dakota – AML Program Grant Awards and Staffing
North Dakota
AML Program Grant Awards and Staffing
(During EY 2022)**

AML Program Costs	
Administration	457,749
Construction	2,371,251
Water Supply Construction	0
AMD Set-Aside	0
Other(s) (Specify)	0
Total AML Funding	\$2,829,000
AML Program Staffing (full-time equivalents on June 30, 2022):	4.5

APPENDIX 2: Comments from State of North Dakota on the Report

North Dakota Annual Evaluation Report

Evaluation Year 2022

North Dakota had the following comments on the EY2022 Report:

The AMLD responded to OSMRE's request for information on August 8th, 2022, with data regarding public participation and outreach, including public meetings, conference, workshops, or other events involving the press or public notification. A list of public meetings conducted by the NDPSC during EY2022, and a list of noteworthy accomplishments, the PSC would like highlighted in the report were also furnished. The request also verified attendance by AMLD personnel at NTTP or TIPS courses. Information required to fill out e-AMLIS Tables 1-7 was also supplied.

The AMLD reviewed a draft of the OSMRE Annual Evaluation Summary Report and responded with comments and updates on September 20, 2022. Comments included grammatical corrections and updates to the e-AMLIS Tables. Updated information included project completion data, including final costs, and project dates.

The OSMRE Casper Area Office would like to thank the staff of the North Dakota AML Division for their assistance and cooperation in gathering the information required to produce this report.